**Exploratory Data Analysis on McDonald's Menu**

This document provides a walkthrough of the exploratory data analysis conducted on the McDonald's menu dataset. The dataset contains information about various menu items, including categories, calorie counts, protein content, sodium content, and iron content.

**What is an EDA?**

Exploratory Data Analysis (EDA) is a critical process in data analysis and statistics. It involves examining and visualizing data to understand its key characteristics, patterns, and trends.

**Dataset Information**

Dataset: McDonald's Menu Dataset

Purpose: To analyse nutritional information of menu items and gain insights into calorie counts, protein content, and other nutritional aspects of the menu.

**Code Overview**

Libraries Used*:* ***NumPy, Pandas****,* ***Matplotlib****,* ***Seaborn.***

**Analysis Steps:**

**Understanding the Data:** Loading the dataset and displaying basic information.

**Data Preparation:** Checking for missing values and preparing the data for analysis.

**Analysis:**

* Identifying menu items with the highest and lowest calorie counts.
* Calculating the average calorie count for the Chicken & Fish category.
* Analyzing the mean calorie count for all other categories.
* Identifying the menu item with the highest protein content.
* Identifying the menu item with the highest iron content.
* Analyzing the distribution of sodium content in the menu items.
* Exploring the correlation between calorie content and protein content.
* Analyzing the correlation between different nutrients in the menu items.

**Meal Suggestion Based on Calorie Intake:**

Providing a function to suggest meal combinations that match a given calorie intake (e.g., 2000-2350 calories for adults).

**Conclusion**

The exploratory data analysis provides valuable insights into the nutritional aspects of the McDonald's menu. By analysing calorie counts, protein content, and other nutrients, we gain a better understanding of the nutritional composition of the menu items.